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COMMUNICATIONS OF FL



**MOTOROLA SOLUTIONS**

Radio Solutions Channel Partner

Radios + Accessories

**MOTOROLA SOLUTIONS**

# CATALOG

>> FCC NARROWBANDING MANDATE IS COMING.

**ARE YOU READY?**

>> FIND THE RIGHT RADIO WITH  
OUR RADIO SELECTION GUIDE

>> MOTOTRBO TRUSTED  
BY 1,000,000 USERS

>> IMPRES™ SMART ENERGY SYSTEM  
CELEBRATES 10 YEAR ANNIVERSARY



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## FCC NARROWBANDING



**THE FCC DEADLINE FOR  
NARROWBANDING IS  
JANUARY 1, 2013!**

Dear Two-Way Radio Licensee,

The Federal Communications Commission (FCC) started the Narrowbanding proceedings, also known as Refarming, almost twenty years ago in an effort to promote more efficient spectrum use in the 150-174 MHz (VHF) and 421-512 MHz (UHF) Part 90 radio frequency bands (which include Business, Industrial, Education, Transportation, Public Safety, and State, Local, and Provincial Government two-way radio system licensees). The FCC has released numerous rulings during this time defining the requirements and mandating specific deadlines which you may need to take action on.

As of January 1, 2013, the Commission's rules will prohibit Industrial/Business and Public Safety Radio Pool licensees in the 150-174 MHz and 421-512 MHz bands from operating with wideband channels (unless their equipment meets the narrowband efficiency standard), even if the license still lists a wideband emission designator. Licensees operating in wideband mode after January 1, 2013 that have not received a waiver from the Commission extending the deadline will be in violation of these rules.

### **What are the potential enforcement consequences to VHF/UHF licensees of failing to narrowband by January 1, 2013?**

Operation in violation of the Commission's rules may subject licensees to appropriate enforcement action, including admonishments, license revocation, and/or monetary forfeitures of up to **\$16,000** for each such violation or each day of a continuing violation and up to **\$112,500** for any single act or failure to act.

We are here to help you prepare for a smooth and cost-effective transition. While Motorola radios purchased in the last ten years are likely dual-mode 25/12.5 kHz, older equipment may need to be replaced. Today Motorola offers the broadest choice of two-way radio equipment, with close to 60 models capable of operating in 12.5 kHz efficiency. This document includes information on most of Motorola's 12.5 kHz products.

***Please contact us today for assistance with your transition process.***

# FCC NARROWBANDING

## FCC NARROWBANDING COMPLIANCE WHAT YOU NEED TO KNOW

The FCC commission's Narrowbanding deadlines affecting land-mobile (LMR) radio users in the UHF and VHF bands are approaching rapidly without much fanfare. Are you prepared to meet these requirements? If not, your business or agency may not be able to fully communicate within the next one to two years.

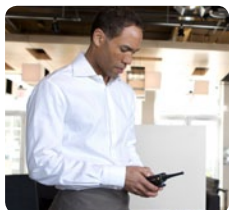
### ARE YOU READY FOR NARROWBANDING?

The Federal Communications Commission (FCC) is mandating all public safety and industrial/business licensees convert existing 25 kHz radio systems to minimum narrowband 12.5 kHz efficiency technology by January 1, 2013. The purpose of the narrowband mandate is to promote more efficient use of the VHF and UHF land mobile frequency bands.

### WHO IS AFFECTED?

All Land Mobile Part 90, 25 kHz efficiency systems operating on the following frequency bands:

- **VHF (150-174 MHz)**
- **UHF (421-512 MHz)**



**Business**



**Industrial**



**Education**



**Transportation**



**Public Safety**



**Government**

## KEY NARROWBANDING DEADLINES FOR RADIO USERS

There are three key FCC deadlines which will directly affect license holders:

**JANUARY 1, 2011** The FCC will not accept any applications for new systems operating at greater than 12.5 kHz bandwidth, unless that technology meets the spectrum equivalency of one voice channel per 12.5 kHz of channel bandwidth or 4800 bps per 6.25 kHz of channel bandwidth.

**JANUARY 1, 2011** The FCC will not accept any applications for license modifications that would expand the geographic coverage of existing systems operating at greater than 12.5 kHz channels, unless that technology meets the spectrum equivalency of one voice channel per 12.5 kHz of channel bandwidth or 4800 bps per 6.25 kHz of channel bandwidth.

**JANUARY 1, 2013** All licensees must migrate to 12.5 kHz technology, or technology that achieves the narrowband equivalent efficiency of one voice channel per 12.5 kHz of channel bandwidth, or 4800 bps per 6.25 kHz of channel bandwidth on or before January 1, 2013.

The main effect of these rulings is that it means that all users currently using 25 kHz based equipment must migrate to a new system at 12.5 kHz efficiency by January 1, 2013, and that they will not be able to get new licenses or modify licenses for 25 kHz systems beyond January 1, 2011.

*Note: The FCC has NOT set any date by which licensees must operate in 6.25 kHz efficiency in these bands.*

## FCC NARROWBANDING

**417 : 04 : 50 : 16**  
**DAYS HOURS MINS SECS**

## PREPARING TO MEET THE MANDATE

With deadlines approaching rapidly, licensees who have not started their narrowband migration should considering the following steps today:

- Take an inventory of your radios to assess what equipment is capable of operating in 12.5 kHz and what will need to be replaced. The FCC has required all radios certified since 1997 to include a 12.5 kHz efficiency mode. Therefore, most of your new equipment is likely to be dual mode (25/12.5 kHz) that can be simple converted via software by us.
- If you have pagers on your system, you will need to verify whether or not they are operating on “paging only” channels.
- Develop budget your requirements and explore possible funding options.
- Establish a conversion and implementation schedule to meet the deadline.
- Contact us to help coordinate your conversion with FCC neighboring agencies to facilitate continued interoperability among your locations and or agencies.
- Conduct tests during your conversion to ensure your system continues to provide similar coverage.
- Contact us to help you with FCC frequency coordinators for any needed license modifications you may need.

**Our team can help you with the entire process. Please contact us today for assistance with your transition.**

## MOTOROLA PRODUCTS MEET NARROWBANDING COMPLIANCE

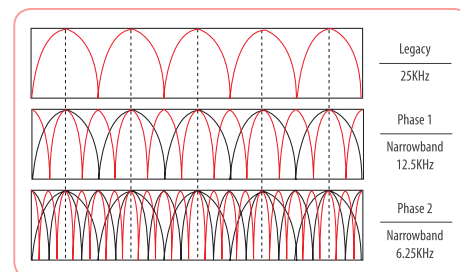
## 12.5 KHZ EFFICIENCY

As a trusted leader in two-way communications, Motorola has been preparing for 12.5 kHz technology for over decade and offers the broadest choice of two-way radio equipment with close to 60 models capable of operating in 12.5 kHz efficiency. All Motorola radios certified by the FCC after February 14, 1997 meet the 12.5 kHz capability requirement. Newer Motorola radios enable modes of operation primarily through software, rather than firmware or hardware. The FCC will consider licensees to be in compliance if the 25 kHz efficiency mode of a dual mode 25/12.5 kHz radio is disabled via software and the radio user cannot subsequently reactivate the 25 kHz efficiency mode.

## 6.25 KHZ EFFICIENCY

For those licensees who want to voluntarily move to even greater efficiency than the 12.5 kHz efficiency required by the FCC, Motorola is currently shipping two complete product families that already meet any FUTURE FCC decision for licensees to operate in a 6.25 kHz equivalent efficiency mode.

- **ASTRO 25** product line for mission critical public safety markets
- **MOTOTRBO** product line for commerce and enterprise markets



Both operate at two voice paths in a 12.5 kHz channel, using a Time Division Multiple Access (TDMA) protocol. This technology allows licensees to double the capacity of their existing 12.5 kHz channel. In addition, they meet the current FCC requirement for licensees to operate in a 12.5 kHz efficiency mode by January 1, 2013.

# FCC NARROWBANDING



## FREQUENTLY ASKED QUESTIONS

### What is Narrowbanding?

In an effort to promote more efficient use of spectrum, the FCC mandated all VHF and UHF Public Safety and Industrial /Business licensees using 25 kHz land mobile radio (LMR) systems migrate to narrowband 12.5 kHz efficiency technology by January 1, 2013.

### What is spectrum efficiency?

Currently the UHF and VHF frequency bands are congested and often there is not enough spectrum available for licensees to expand their existing systems or implement new systems. This mandate requires licensees to operate more efficiently, either on narrower channel bandwidths or increased voice paths on existing channels. This will allow creation of additional channels within the same spectrum, thereby supporting more users.

### What does Equivalent Efficiency mean?

The FCC does not mandate channel width, it mandates spectrum efficiency. FCC rules require 12.5 kHz or equivalent efficiency. Any of the following meet the 12.5 kHz equivalent efficiency requirement:

- One voice path in a 12.5 kHz channel
- Two voice paths in a 25 kHz channel
- Data rates of 4.8 kbps per 6.25 kHz channel, such as 9.6 kbps per 12.5 kHz and 19.2 kbps per 25 kHz channel

### What do I need to do before January 1, 2011 versus January 1, 2013?

After January 1, 2011, users who apply for a new license or modify their existing license must specify 12.5 kHz efficiency. If you need to expand your service area for your existing 25 kHz efficiency system, you will need to submit an application before January 1, 2011. Manufacturers can no longer certify equipment capable of operating at 25 kHz efficiency after January 1, 2011. However, per the FCC Order, released June 30, 2010, manufacturers can now manufacture, import, and market equipment capable of operating at 25 kHz efficiency until January 1, 2013. This will allow you to purchase additional or replacement radios until you migrate to 12.5 kHz efficiency by that date, as mandated by the FCC.

By January 1, 2013 all licensees must convert to and operate in at least 12.5 kHz efficiency. By that date, you must ensure that the 25 kHz mode is disabled via software on your dual mode 25/12.5 kHz radios. And you must replace all radios only capable of operating at 25 kHz efficiency.

### What will happen if I fail to comply with the FCC Narrowbanding mandate? Can I continue to operate at 25 kHz efficiency on a secondary status after January 1, 2013?

No. The FCC will prohibit licensees from operating 25 kHz efficiency equipment on a secondary basis. Non-compliance will be considered a violation subject to FCC Enforcement Bureau action, which may include admonishment, monetary fines and loss of license.

### How can I tell if my Motorola equipment is 12.5 kHz capable?

All Motorola radio equipment certified by the FCC since February 14, 1997 is 12.5 kHz efficiency capable. To review the list of Motorola 12.5 kHz capable products please see the chart on the following pages or contact us.

## FCC NARROWBANDING

### **How do I upgrade my existing 12.5 kHz capable equipment?**

In most cases, we can use Motorola Customer Programming Software (CPS) to reprogram your subscriber and base station radios to operate at 12.5 kHz. Typically, infrastructure site equipment (duplexers, multicoupler, window filter) does not require any changes. Please contact us if you need technical assistance.

### **If I need to upgrade equipment, do I need to implement digital equipment?**

No. Licensees can operate in either analog or digital formats as long as you operate at 12.5 kHz efficiency. Motorola 12.5 kHz efficiency equipment is available in both analog and digital formats.

### **Does Narrowbanding require me to change frequencies or obtain new channels?**

No. Narrowbanding does not require moving to another frequency band or different channels. Licensees stay on the same channel center(s), but reduce the bandwidth of the channel(s) currently used, from 25 kHz to 12.5 kHz and change the emission designator on the license. Alternatively, licensees stay on the same 25 kHz channel but implement a 12.5 kHz equivalent technology on that channel.

### **If I currently have a license for a 25 kHz channel, will I automatically be entitled to license two 12.5 kHz channels?**

No. Your 12.5 kHz channel will remain on the same 25 kHz channel center. Your current 25 kHz channel will not be split into two 12.5 kHz channels. You will need to justify and apply for any additional 12.5 kHz channels to the FCC through a certified frequency coordinator.

### **Will migration to 12.5 kHz change my system coverage area?**

Maybe. We can help you conduct tests during conversion to ensure your system continues to provide similar coverage. Please contact us to help you determine if transmitter site changes or additions will be required to compensate for possible coverage change.

### **How can I determine if I have a valid FCC license?**

Please contact us.

### **Has the FCC established a schedule for mandatory migration to 6.25 kHz efficiency?**

No. The FCC has not set any date by which licensees must operate in 6.25 kHz efficiency. The current mandate only requires users to migrate to 12.5 kHz efficiency by January 1, 2013. Based on the 12.5 kHz migration time line, we believe that any potential future FCC decision to require users to migrate to 6.25 kHz efficiency will take a considerable number of years.

### **Does Motorola offer 6.25 kHz efficient products?**

For those licensees who want to voluntarily move to 6.25 kHz efficiency, Motorola is currently shipping two complete product families that already meet a 6.25 kHz equivalent efficiency mode. ASTRO® 25 product line for Mission Critical Subscribers and MOTOTRBO™ product line for Commerce and Enterprise clients. Both operate at two voice paths in a 12.5 kHz channel, using a Time Division Multiple Access (TDMA) protocol. This technology allows you to double the capacity of your existing 12.5 kHz or 25 kHz channel.

### **Where can I get additional help?**

For more information on Narrowbanding, please contact us.

# FCC NARROWBANDING

Motorola subscriber radios and stations **CAPABLE** of migrating to 12.5 kHz efficiency

## PORTABLES:

APX 6000 | APX 6000XE | APX 7000 | APX 7000XE | BPR40 | CP110 | CP185 | CP200  
CP200•XLS | EX500 | EX560•XLS | EX600•XLS | HT1250 | HT1250•LS+ | HT750 | MT 1500  
PR1500 | PR400 | PR860 | VL50 | XPR 6350 | XPR 6550 | XPR 6380 | XPR 6580 | XTS 1500  
XTS 2500 | XTS 4000 | XTS 5000

## MOBILES:

APX 6500 | APX 7500 | CDM1250 | CDM1550 | CDM1550•LS+ | CDM750 | CM200 | CM300  
PM1500 | PM400 | XPR 4350 | XPR 4550 | XPR 4380 | XPR 4580 | XTL 1500 | XTL 2500  
XTL 5000 | XTL 5000 Consolette

## STATIONS:

Quantar | MTR2000 | MTR3000 | XPR 8380 | XPR 8400

## PAGERS:

Advisor II | MINITOR V



**DISCONTINUED** Motorola subscriber radios and stations that may be capable of migrating to 12.5 kHz efficiency. Please contact your sales representative for details.

## PORTABLES:

CP100 | CP125 | CP150 | HT1000 HT1550 XLS | JT 1000  
MT 2000 | MTS 2000 | ASTRO Saber Spirit GT | SPIRIT M  
XPR 6300 | XPR 6500 | XTN | XTS 3000 XTS 3500

## MOBILES:

ASTRO Spectra Consolette | ASTRO Spectra | ASTRO Spectra Plus  
LCS 2000 | MCS 2000 | XPR 4300 | XPR 4500



NOTE: The list of current and cancelled products may not be complete. Contact your sales representative for details.

## RADIO SELECTION GUIDE

### TWO-WAY RADIO SELECTION GUIDE

**Find the Right Radio for Business and Education -  
Right Here for Meeting the FCC mandate for 12.5 KHz.**

**Versatile and powerful, to keep your staff connected.**

Motorola's diverse array of portable and mobile two-way radios enable you to efficiently coordinate and communicate with your mobile workforce. Ideal for use by a variety of industries looking to remain competitive in today's market, Motorola radios deliver a high quality communication solution designed to help increase efficiency, productivity and worker safety while lowering operating costs.

#### MANUFACTURING

Make it easy for all staff, from line workers to maintenance to security, to collaborate as a single, unified work team while increasing productivity and worker safety.

#### TRANSPORTATION AND LOGISTICS

Deliver goods safely and efficiently while increasing customer service with accurate, real-time information.

#### EDUCATION

Give staff and faculty constant access to critical information and enhance safety and efficiency in your schools.

#### HOSPITALITY

Communicate discreetly for seamless coordination of your entire service staff and enhanced customer service.

### Commercial and Professional Uses Portable and Mobile Radios

The right two-way radio can empower an entire organization by providing real-time information to your workforce. Suddenly, fleet members are more effective and informed. Individuals can make more meaningful contributions to the overall business objective. Significant savings in travel time and money are realized. Safety and efficiency are no longer mutually exclusive. Motorola has portable radios perfect for employees who work on-site in hospitality, manufacturing and retail enterprises, as well as mobile radios perfect for employees in transportation, delivery and public service sectors.

**Motorola two-way radios – Transforming the enterprise, Empowering the individual.**

Whether your workforce is comprised of employees primarily located on-site at your facility, mobile in vehicles or a combination of both, two-way radios enable your employees to stay connected. Portable radios are ideal for employees who work on-site; mobile radios are installed in vehicles and ideal for your on-the-go workforce.

Depending on the features and functionality needed for your business, Motorola's portable and mobile radios have both commercial and professional types.



# RADIO SELECTION GUIDE

## COMMERCIAL RADIOS

A basic, easy to use communication solution that is ideal for elementary and high schools, hotels, restaurants, food service, construction and delivery operations.

- Simple, basic solution for work team communication
- Compact models
- Display and non-display models
- Limited or non-key pad models
- Repeater capability for increased coverage when needed
- Hands-free communication with voice activation
- Variety of audio and carrying accessories

## PROFESSIONAL RADIOS

The ideal communication solution for larger organizations with more complex communication needs such as: manufacturing, warehousing, collegiate campuses, resorts, utilities and public service operations.

- The most robust solution
- Variety of scanning and signaling options
- High number of channels to organize large work groups
- Intrinsically safe models for use in hazardous work environments
- Data applications such as GPS location tracking and text messaging
- Option board capability to enable customized applications
- IMPRES™ audio and energy accessory solutions



## Radio Selection Portable and Mobile Radios

### USER NEEDS

There are three basic factors you need to select which radio is right for you.

1. Number of Users / Channels
2. Frequency Band
3. Features

### NUMBER OF USERS / CHANNELS

The number of individual users as well as the number of talk groups you need to maintain determines the number of channels you will require in a radio. For example, if you wish a certain department to maintain its own talk group, it would require a dedicated channel for that department. If two or more individuals need to maintain private communications, a dedicated channel would be required. It is not uncommon to have multiple channels within a department for special projects where more than one operation or event is occurring simultaneously. In addition, the use of digital technology increases the capacity of your system by dividing your existing channels into two time slots. This enables you to double the number of users on your system without the need for additional infrastructure equipment. Lastly, when making decisions regarding the number of channels you require, it is very important to keep future expansion in mind.

### FREQUENCY BAND

For most general applications there are 3 categories of frequency bands to consider:

- VHF (Very High Frequency) at 136-174 MHz
- UHF (Ultra High Frequency) at 403-512 MHz
- 800 / 900 MHz

# RADIO SELECTION GUIDE

All bands have advantages for specific applications. As a rule, the higher the frequency, the better the in-building penetration. However, as you increase in frequency, you will decrease in range. VHF frequencies (136-174) are better suited for outdoor applications where maximum range is required with little to no obstructions. UHF and the 800 / 900 MHz frequencies are better suited for indoor applications or environments with obstructions. VHF and UHF frequency bands are typically used for conventional two-way radios systems while 800 / 900 MHz frequency bands are commonly used for trunking two-way radio systems.

## FEATURES

A wide variety of features are available to help increase the efficiency, productivity and safety of your workforce. Efficiency/productivity features include integrated data applications that increase a radio's capability beyond voice communication, and telephone interconnect, which enables radios to talk with a telephone PBX system. Safety features include emergency notification for use during urgent situations and intrinsically safe certifications for hazardous work environments.

## TWO-WAY RADIO FEATURES

### INTRINSICALLY SAFE

Intrinsically Safe is a designation which affirms that a portable radio, with an attached certified battery, is safe for use in locations where flammable gas, vapors or combustible dust may be present according to the Division, Class and Group for which it has been approved.

### TELEPHONE INTERCONNECT

Telephone Interconnect is a feature that enables a radio system to be connected to a telephone PBX system, which allows radios to make phone calls using the radio keypad.

### TECHNOLOGY

Two-way radios have traditionally used analog technology. Digital technology is the next generation of two-way radio and offers several advantages over analog including clearer audio, integrated data applications, 40% longer battery life and increased capacity.

### TEXT MESSAGING / GPS

Using digital technology, Text Messaging communicates between radios, radios and dispatch systems, and radios to any email capable device. Also using digital technology, GPS enables location tracking of vehicles and personnel in outdoor environments.

### THIRD PARTY DATA APPLICATIONS

Third Party Data Applications expand the functionality of digital radios by enabling customized applications to be built for your unique business needs including dispatch solutions, work order ticket management, system monitoring and much more.

### TRUNKING

Trunking is a radio system configuration that uses a control channel to efficiently organize the radios and conversations on your radio system. This enables a large number of radio users to operate on the same system.

### EMERGENCY CALL

Emergency Call allows a radio user, with the push of a button, to send a distress message to all other radios users to indicate an emergency and be given priority to talk.



## RADIO SELECTION GUIDE

### QUIK-CALL II™ SIGNALING

Quik-Call II signaling is an analog two-tone format used for paging over a two-way voice channel. The decoding of tones allows the radio to receive only messages intended for its specific user, and activates that radio when to start listening to a conversation. The encoding of tones allows the radios to send such messages to specific units. This is a feature commonly used by rural fire departments.

### DTMF SIGNALING

Dual-Tone Multi-Frequency (DTMF) Signaling enables radio users to use the radio keypad to control another device that is pre-programmed to recognize the tones as commands. This feature is commonly used to open/close gates, turn off/on sprinkling systems or place a phone call using the telephone interconnect feature.

### MDC 1200 SIGNALING

MDC 1200 Signaling uses low speed data packet transmissions that grants radio users access to a number of enhanced features such as unit ID, selective inhibit, radio check and selective calling.

### ENHANCED / BASIC PRIVACY

Enhanced / Basic Privacy is a technology that allows a transmitting radio to send out a scrambled audio signal and a receiving radio to unscramble that signal. This helps to prevent unauthorized users from listening to sensitive communications

### IMPRES™

IMPRES is a state-of-the-art, Motorola exclusive technology that enables communication between the radio and accessory, resulting in the prolonged life of your batteries, longer talk time and clearer audio delivery.

## PEACE OF MIND COMES STANDARD WITH EVERY MOTOROLA RADIO.

There's a reason why Motorola two-way radios are built to last. Motorola's rugged and reliable radios undergo rigorous testing in the design process. Motorola uses U.S. Military Standards and Accelerated Life Testing, so you can be assured Motorola radios will hold up under demanding conditions.

### ISO 9001 ISO 9001

International quality assurance system for design, development, production, installation and servicing of a product.

### ACCELERATED LIFE TESTING (ALT)

Simulates five years of extreme hard use. Conducted by Motorola during early product development to improve quality, design and product life.

### US MILITARY SPECS 810

Environmental testing specifications for equipment performance and survivability in harsh conditions. As many as 11 unique tests are covered, including low pressure, high / low temp, shock, solar radiation, rain, humidity, dust and vibration.



## PORTABLE RADIO SELECTION GUIDE



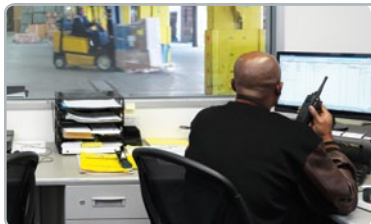
	Commercial Radios				Professional Radios							
Number of Channels	8 or 16	16	4 or 16	128	16, 32 or 64	4 or 16	128	16 or 32	160	32	1000	32
Band Availability	VHF, UHF	VHF, UHF	VHF, UHF	VHF, UHF	VHF, UHF	VHF, UHF Low Band	VHF, UHF Low Band	VHF, UHF 200/700 MHz	VHF, UHF	VHF, UHF 800/900 MHz	VHF, UHF 800/900 MHz	VHF, UHF
Trunking Capable				•	•			•	•	•	•	
Intrinsically Safe					•	•	•	•	•	•	•	•
Telephone Interconnect				•	•	•	•	•	•			
Emergency Call						•	•	•	•	•	•	•
Enhanced Privacy										•	•	
Basic Privacy		•								•	•	
Digital or Analog Technology	Analog	Analog	Analog	Analog	Analog	Analog	Analog	Analog	Analog	Digital or Analog	Digital or Analog	Analog/Digital Upgradeable
Text Messaging / GPS										•	•	
Third Party Data Applications										•	•	
Quik-Call II™ II Signaling			•	•	•	•	•	•	•	•	•	•
DTMF Signaling				•	•	•	•		•	•	•	
MDC 1200 Signaling			•	•	•	•	•	•	•	•	•	•
IMPRES™ Audio Accessories										•	•	
IMPRES™ Batteries & Chargers						•	•	•		•	•	•

## MOBILE RADIO SELECTION GUIDE



	Commercial Radios		Professional Radios					
Number of Channels	4	64	4	64	16 or 160	32	1000	255
Band Availability	VHF, UHF	VHF, UHF	VHF, UHF Low Band	VHF, UHF Low Band	VHF, UHF 200/700 MHz	VHF, UHF 800/900 MHz	VHF, UHF 800/900 MHz	VHF, UHF
Trunking Capable		•			•	•	•	
Telephone Interconnect			•	•	•			•
Emergency Call	•	•		•	•	•	•	•
Enhanced / Basic Privacy						•	•	
Digital or Analog Technology	Analog	Analog	Analog	Analog	Analog	Digital or Analog	Digital or Analog	Digital or Analog
Text Messaging / GPS						•	•	
Third Party Data Applications						•	•	
Quik-Call II™ Signaling	•	•		•	•	•	•	•
DTMF Signaling		•	•	•	•	•	•	•
MDC 1200 Signaling	•	•	•	•	•	•	•	•
Illuminated Display	Single Digit	8 Character	Non-Display	14 Character	14 Character	Numeric	Alphanumeric	8 Character
IMPRES™ Audio Accessories						•	•	
Keypad Microphone	•	•	•	•	•	•	•	•

## COMMERCIAL PORTABLE RADIOS



Portable Two-Way radios make dedicated two-way communications faster, clearer, and easier to use for users on the move. These practical radios can easily help increase productivity by keeping users communicating, while allowing them to concentrate on the job at hand.



### VL50™ | Small, Lightweight, and Simple-to-Use

To provide businesses with that competitive edge, Motorola has developed an easy-to use, affordable wireless solution – Value Line Business two-way radios. Helping businesses offer superior customer service, the VL allows employees to react quickly to requests and have instant access to one another. VL two-way radios and headsets are designed with business productivity in mind – providing functionality at the push of a button.

**Ideal for:** Restaurant, Event Coordination, and Retail.

**Features:** Up to 8 Channels · 12.5 kHz Channel Spacing · Scan, 83 DPL · 38 PL Codes · VibraCall Alert · Battery Meter · Radio Signal Strength Indicator · Enhanced VOX (No accessory needed) · 7 Selectable Call Tones · Operates on 3 AAA Batteries for Emergency Situations. **Specifications:** Frequency Range: UHF (464.5 – 467.9 MHz) · Power: 1 Watt · Warranty: 1 Year



### BPR™ 40 | Small Size and Light Weight Make it Ideal for any Business

The BPR™40 portable two-way radio delivers reliable, intuitive communication through 8 channels and 12 programmable buttons. The high-/low-power option saves battery charge. Features such as nuisance channel delete and repeater talkaround make the radio a versatile, high-performance device. The BPR40 is part of the Mag One™ by Motorola radio portfolio. This affordable solution gives remarkable quality and value that is perfect for your business, and comes with a complete assortment of accessories to customize your radio.

**Ideal for:** Education, Hospitality, Light Construction, Restaurants, and Retail.

**Features:** Choose either the 8 or the 16 channel model for group communications · Programmable buttons · Small, lightweight, die cast chassis built to withstand everyday wear and tear · High-power or low-power option, to save battery charge · Priority Channel Scan · 12 Programmable Features to choose from. **Specifications:** Frequency Range: VHF (150 -174 MHz) or UHF (450 - 470MHz) · Power: 1W/4W (UHF), 1W/5W (VHF) · Battery Life: 8 hours (high power - 4W/5W); 11 hours (low power - 1W) · based on 5/5/90 duty cycle · Dimensions H x W x L (with standard battery) - 4.21" x 2.28" x 1.46" · Weight (with standard battery) – 12.3 oz. · Warranty: 1 Year



### CP110™ | A Powerful Combination of Exceptional Audio Quality and Excellent Durability

The CP110 portable two-way radio delivers just what you need to drive your business success: pace-setting performance and durability. It starts with exceptional audio quality enabling essential communication in loud environments. CP110 radios deliver audio that is 30% louder than previous Motorola CP100 radio models. And it keeps on going, with rugged construction to stand up to harsh job-site conditions. The CP110 features a durable metal die-cast chassis. It meets Military 810 C, D, E, F standards and IP54/55 specifications for shock, rain, humidity, salt fog, vibration, sand/dust, temperature shock plus high and low temperature.

**Ideal for:** Construction, Education, Hospitality, Manufacturing, Property Management, and Retail.

**Features:** 2 and 16 conventional channels models available · Channel Scan with Selectable Scan List VOX (Hands-Free use with accessories) · 3 Voice-Inversion Scramble Settings to Minimize Eavesdropping. **Specifications:** Frequency Range: VHF (150.8-174 MHz) or UHF (450–470MHz) · Power: 2 Watts · Up to 26 hours of Battery Life (based on 5/5/90 duty cycle) · Coverage - UHF: Up to 250,000 sq. feet, 20 floors. VHF: Up to 220,000 sq. feet, 13 floors. · Dimensions H x W x L (with standard battery) - 4.5" x 2.2" x 1.8" · Weight (with standard battery) – 10.3 oz. · Warranty: 1 Year



### CP110™ MURS | Pace Setting Performance and Dependability

The CP110™ MURS delivers just what your customers need to drive their business success: pace setting performance and dependability. It starts with exceptional audio quality which enables essential communication in loud environments. 2000 mW of audio output and other new design enhancements help CP110™ MURS radios deliver audio that is 30% louder than previous Motorola CP100™ radio models. The MURS frequency band consist of five VHF shared frequencies designated for private, two-way, short-distance voice or data communications for personal or business activities within the United States for which no individual station licenses are required.

**Ideal for:** Construction, Hospitality, Manufacturing, Property Management, and Retail.

**Features:** No Individual Station Frequency License Required · Up to 8 Channels (Display Model) / 2 Channels (Non - Display Model) · 3 Voice-Inversion Scramble · Channel Scan with Selectable Scan List · 3 Audible Call Tones · VOX. **Specifications:** Frequency Range: VHF: 5 Fixed MURS Frequencies · Power: 2 Watts · Up to 26 hours of Battery Life (based on 5/5/90 duty cycle) · Coverage - UHF: Up to 250,000 sq. feet, 20 floors. VHF: Up to 220,000 sq. feet, 13 floors. · Dimensions H x W x L (with standard battery) - 4.5" x 2.2" x 1.8" · Weight (with standard battery) – 10.3 oz. · Warranty: 1 Year



### **CP185™** | Enhanced Functionality, Reliable Communication – for a Higher Level of Productivity

The Motorola CP185 brings you a robust two-way radio solution. The CP185 has an extensive feature set including built-in voice scrambling for increased privacy, VOX capability for hands-free communication, 5 programmable buttons and X-Pand™ Technology to provide crisp, clear and strong audio quality even in noisy environments. Combined with the compact, lightweight design of the CP185, you get just what it takes to enhance communication while increasing productivity.

**Ideal for:** Education, Construction, Hospitality, Manufacturing, Property Management, and Retail.

**Features:** 16 channels to support communication among all of your employees · Easy-to-handle, lightweight, compact design · Voice scrambling for increased privacy · VOX ready for hands-free communication · 5 programmable buttons · Channel Scan. **Specifications:** Frequency Range: VHF (136 – 174MHz) or UHF (435 – 480MHz) · Power: 2/4 Watts (UHF) 2 / 5 Watts (VHF) · Up to 10 Hour Battery Life (based on 5/5/90 duty cycle) · Dimensions H x W x L (with standard battery) – 4.72" x 2.28" x 1.46" · Weight (with standard battery) - 12.34 oz. · Mil Spec - 810 C, D, E, F · Warranty: 2 Years



### **CP200™** | One of Motorola's Best Selling Radios... Ever

The CP200 portable two-way radio offers the increased communication flexibility with features such as push-to-talk ID and selective call. Powerful audio output penetrates noisy environments, providing clear, crisp audio at any volume. A lightweight, ergonomic design makes this radio comfortable to carry and operate. To provide the range that's best for your business, the CP200 radio is available in both 4W UHF and 5W VHF models. A range of battery choices and rapid recharging capabilities helps ensure radio readiness.

**Ideal for:** Education, Hospitality, Retail, and Security.

**Features:** Operates on 4 or 16 conventional channels · Large, Textured Push-to-Talk Button easy to find and use, even when wearing gloves · Selective Call/Call Alert · Bright tricolor LED Indicates radio status and battery levels · Rugged, Die-Cast Chassis with poly carbonate housing for greater protection · System Scan and Auto Scan · Push-to-Talk ID. **Specifications:** Frequency Range: VHF ( 146 -174MHz) or UHF (438 -470MHz) · Power: 2/4 Watts (UHF) 2 / 5 Watts (VHF) · 9 Hour Battery Life (based on 5/5/90 duty cycle) · Voice operated transmit (VOX) · Dimensions H x W x L (with standard battery) - 5" x 2.4" x 1.75" · Weight (with standard battery) - 14.98 oz. · Mil Spec – 810 C, D, E, F · Warranty: 2 Years



### **CP200 XLS™** | One of Motorola's Best Selling Radios...now with LTR Trunking

The expanded features of the CP200-XLS portable two-way radio makes it a perfect fit for education, hospitality, retail, manufacturing and security organizations who need additional capabilities and capacity to manage a large workforce. Featuring both conventional and LTR® trunking capability, the CP200-XLS enables you to efficiently organize your workforce. With both a limited keypad and full keypad model, the CP200-XLS also features an 8 character alpha-numeric display, four programmable buttons for quick access to up to eight programmable features and X-Pand™ technology for crisp, clear audio—all in a lightweight, durable design.

**Ideal for:** Education, Hospitality, Retail, Manufacturing and Security Organizations who need additional capabilities and capacity to manage a large workforce.

**Features:** Full and limited keypad models · 128 Conventional Channels · 12.5 KHz Channel Spacing · 8 Character Alphanumeric Display · 4 Programmable Buttons · Companding X-Pand™ Technology · Dual Priority Scan. **Specifications:** Frequency Range: VHF (136 -162, 146 -174MHz) or UHF (403 - 440, 438 - 470, 465 - 495MHz) · Power: 2/4 Watts (UHF) 2 / 5 Watts (VHF) · 9 Hour Battery Life (based on 5/5/90 duty cycle) · Voice operated transmit (VOX) · Dimensions H x W x L (with standard battery) - 5" x 2.4" x 1.75" · Weight (with standard battery) - 14.98 oz. · Mil Spec – 810 C, D, E, F · Warranty: 2 Years



## DTR650™ | Enhancing Productivity, Efficiency, Safety, and Customer Service

The DTR650™ digital on-site portable radio delivers great features with managerial capabilities. The radio features operates at 900 MHz and offers enhanced communication options such as Digital One-to-Many Calling (Public Group Call and Private Group Call). It also provides enhanced performance with greater coverage — up to 350,000 square feet or 30 floors (with long whip antenna) — as well as longer battery life and digital audio quality that is clear and crisp within coverage areas.

**Ideal for:** Construction, Education, Hospitality, Manufacturing, Property Management, and Retail.

**Features:** Up to 50 Public Groups and 20 private groups · Scan · 12 Alert Tones plus VibraCall™ · SMS · Battery Meter · License Free Communication · Backlit Display · Private Calling · Public Group Calling · Private Group Calling · Public Group Scan with Scan List **Specifications:** Frequency Range: 900MHz ISM Band · 14.5 Hour Battery Life · Voice operated transmit (VOX) · Dimensions H x W x L (with standard battery) - 5.2" x 2.3" x 1.4" · Weight (with standard battery) - 7.6 oz. · Standard Warranty: 1 Year

MOTOROLA SOLUTIONS

## COMMERCIAL MOBILE RADIOS



Mobile Two-Way radios are vehicle-mounted wireless devices that are used to send voice or data messages one-to-one or one-to-many over radio frequencies within a local area, city, or state. They are often installed on the dash of a vehicle, and can run off its power source. They are used by someone who doesn't need to communicate away from their vehicle.



## CM200™ | Frees Drivers to Concentrate on the Road

With its large controls, powerful 4-watt speaker and bright LED indicators, the CM200 mobile two-way radio frees drivers to keep their attention on the road. Two programmable buttons accommodate up to four features, such as tight/loose squelch, repeater talkaround and nuisance channel delete. This radio is part of the CM series from Motorola, a solution engineered to deliver unprecedented quality, value, reliability, ease-of-use, audio quality, size and weight, programmability and range.

**Ideal for:** Agriculture, Hospitality, Retail, and Transportation.

**Features:** 4 channel capable · Large controls accommodate all users, including ones wearing gloves · Powerful loudspeaker · Bright LED indicators and alphanumeric display · Quik Call II™ and MDC 1200 Signaling · Audio Indicator Tones · Busy Channel Lockout · Single Priority Scan. **Specifications:** Frequency Range: VHF (146 - 174MHz) or UHF (438 - 470MHz) · Power: 1-25 Watts VHF/UHF Low Power Models, 25 - 45 Watts VHF High Power Model, 25 - 40 Watts UHF High Power Models · Dimensions H x W x D - 1.73" x 6.67" x 4.64" · Weight - 2.25 lbs. · Mil Spec - 810 E · Warranty: 2 Years



## CM300™ | Unparalleled Durability, Accessibility and Range

With a versatile 32 channels, powerful 4-watt speaker and alphanumeric display, the CM300 mobile two-way radio lets users concentrate on the road. Four programmable buttons accommodate up to 8 features, such as 2 channel / Home Revert, Escalart and Phone Mode. This radio is part of the CM series from Motorola, a solution engineered to deliver unprecedented quality, value, reliability, ease-of-use, audio quality, size and weight, programmability and range.

**Ideal for:** Agriculture, Hospitality, Retail, and Transportation.

**Features:** Operates on 32 channels · Powerful loudspeaker · Bright LED indicators and alphanumeric display · Quik Call II™ and MDC 1200 Signaling · Single Priority Scan · System Scan and Auto Scan · Supports Up to 16 Scan Lists · Menu Mode. **Specifications:** Frequency Range: VHF (146 - 174 MHz) or UHF (438 - 470 MHz) · Power: 1-25 Watts VHF/UHF Low Power Models, 25 - 45 Watts VHF High Power Models, 25 - 40 Watts UHF High Power Models · Dimensions H x W x D - 1.73" x 6.67" x 4.64" · Weight - 2.25 lbs. · Mil Spec - 810 E · Warranty: 2 Years



## MOTOROLA PORTABLE RADIOS

No matter the size of your business, Motorola has portable radios to meet your communication needs. Efficiency, productivity and safety are vital to your organization. With a wide variety of models and features, Motorola's two-way portable radios are an ideal solution for your communication needs.



### PR400™ | 3 Models to choose from...some with LTR Trunking

The PR400 portable two-way radio is perfect for new two-way radio users, small organizations, and firms that want an affordable solution with a maximum number of features. It gives a wide choice of channels, is LTR-capable and is available in three models: 16 channels (non-display/non-keypad), 32 channels (full alphanumeric display/partial keypad) and 64 channels (full alphanumeric display/full keypad).

**Ideal for:** Agriculture, Construction, Hospitality, Manufacturing, Public Administration, Security, Transportation, and Utilities.

**Features:** Up to 64 channels or 10 sites and 100 Talkgroups LTR · Priority Channel Mode scans for higher-priority channel · Programmable side and Push-to-Talk buttons · Quik Call II and MDC 1200 Signaling · VOX **Specifications:** Frequency Range: VHF: ( 146-174 MHz); UHF: ( 438-470 MHz) · Power: 1 - 5 Watts VHF / 1 - 4 Watts UHF · Mil Spec 810 C, D, E, & F · 12 Hour Battery Life (based on 5/5/90 duty cycle) · Dimensions H x W x L (with standard battery) - 5" x 2.4" x 1.75" · Weight (with standard battery) - 13.3 oz. · Standard Warranty: 2 Years



### PR860™ | Hard-working with Heavyweight Features

The Motorola PR860 portable two-way radio combines durability and performance with advanced features and a rugged design. This affordable radio also offers an advanced level of sound clarity and dynamics for a radio at this price. The ergonomic design maximizes user comfort, with bigger knobs and controls that can be easily operated - even while wearing heavy gloves.

**Ideal for:** Community Safety Groups, Construction, Fire, Manufacturing, Police, Public Utilities.

**Features:** Up to 16 conventional channels · Single Priority Scan · Voice-operated transmit · Programmable side and Push-to-Talk buttons · Quik Call II and MDC 1200 signaling · Emergency button **Specifications:** Frequency Range: Low band: (29.7 - 42.0 MHz, 35.0 - 50.0MHz) VHF: (136 - 174MHz) UHF: (403 - 470 MHz, 450 - 512MHz) · Power: 1 - 5 Watts VHF / 1 - 4 Watts UHF; Low band: 6 Watts · Mil Spec 810 C, D, & E · Dimensions H x W x L (with standard battery) - 5.40" x 2.26" x 1.60" · Weight (with IMPRES Li-ion battery) - 12.8 oz. · Standard Warranty: 2 Years



### HT750™ | The Practical Radio - MSHA Option Available

The HT750 radio is the affordable and reliable solution for professionals who require a rugged and reliable radio to stay in contact. It is available in Low Band, VHF and UHF and offers models that operate on Conventional Systems. This practical radio can easily help increase productivity by keeping users connected and free to concentrate on the job at hand. And with Motorola's unique X-Pand technology, audio quality is clean and crisp in most environments.

**Ideal for:** Construction, Entertainment, Hospitality, Manufacturing.

**Features:** Operate on 4 or 16 conventional channels · VOX · X-pand Compression · Escalart Call · Quik Call and MDC 1200 signaling · Priority Channel scans for higher-priority channel **Specifications:** Frequency Range: Low band: (35 - 50MHz) VHF: (136 - 174MHz; UHF: (403 - 470, 450 - 512MHz) · Power: 1- 5 Watts VHF / 1 - 4 Watts UHF; Low band: 1- 6 Watts · 8 Hour Battery Life (based on 5/5/90 duty cycle) · Mil Spec 810 C, D, & E · Dimensions H x W x L (with standard battery) - 5.4" x 2.26" x 1.5" · Weight (with standard battery) - 15 oz. · Standard Warranty: 2 Years



### HT1250™ / HT1250 LS +™ | The Versatile Radio with LTR®/PassPort® Trunking Models Available

The Motorola HT1250 portable two-way radio is an exceptional tool for growing organizations because of its versatility. The radio offers a full menu of advanced signaling features, including paging and calling selective radios or groups. Information such as phone numbers, call lists and radio IDs are stored for easy access. Onboard X-Pand technology results in superb audio clarity, even in noisy surroundings. The large LCD screen provides an important feature for critical situations. The HT1250 LS was designed to operate on LTR® trunking systems, which provides a wider calling range.

**Ideal for:** Construction, Entertainment, Hospitality, Manufacturing.

**Features:** Conventional model capable of 128 channels (16 zones) / Trunked model capable of 15 Trunk Zones and 16 Talk Groups · Alphanumeric screen · VOX · Quik Call and MDC 1200 signaling · Dual Priority Channel Scan **Specifications:** Frequency Range: Low Band , VHF, 200MHz, UHF, · Power: 1- 5 Watts VHF & 200MHz; 1 - 4 Watts UHF; Low band: 1 - 6 Watts · 8 Hour Battery Life (based on 5/5/90 duty cycle) · Mil Spec 810 C, D, & E · Dimensions H x W x L (with standard battery) - 5.4" x 2.26" x 1.5" · Weight (with standard battery) - 15 oz. · Standard Warranty: 2 Years



### EX500™ | Putting Sophisticated Communication in the Palm of Your Hand

The Motorola EX500 portable two-way radio delivers the advanced, efficient two-way communication you need to stay well connected. With less than 10 ounces packed into a small, compact design, this lightweight radio fits easily into the palm of your hand. Precision-controlled signaling provides an extensive range of calling options, helps you to maximize productivity and get the job done. Motorola's Expert Line of Two-Way Radios – Keeping You Well Connected.

**Ideal for:** Event Management, Hospitality, Manufacturing, Security & Public Safety.

**Features:** Capable of 16 channels · Comfortable, ergonomic design · Audio enhancement · Scanning capabilities · Versatile accessories · VOX · Programmable emergency button **Specifications:** Frequency Range: VHF (136-174MHz), UHF (403-470, 450-512MHz) · Power: 5 Watts VHF / 4 Watts UHF · 10 Hour Battery Life (based on 5/5/90 duty cycle) · Mil Spec 810 C, D, & E · Dimensions H x W x L (with standard battery) – 3.74" x 1.04" x 2.17" · Weight (with standard battery) - 8 oz. · Standard Warranty: 3 Years



### EX560 XLS™ | Submersible and Operates on LTR® Systems

Designed to operate in the harshest of outdoor environments, Motorola's EX560 XLS two-way radio delivers exceptional quality, performance, durability and reliability, keeping users in contact when conditions turn rough. This compact, rugged radio is built for durability - with IP67 specifications for protection against water and dust intrusion. The EX560 XLS was designed to operate on LTR® trunking systems, which enhances your communication by providing a wider calling range.

**Ideal for:** Civil Engineering, Construction, Forestry, Manufacturing, Outdoor Security, Petrochemical, Quarrying and Utilities.

**Features:** Capable of up to 160 Conventional Channels and 15 Trunked Zones · 14 Character Alphanumeric Display · Comfortable, ergonomic design · Scanning capabilities · VOX · Programmable emergency button **Specifications:** Frequency Range: VHF (136 -174MHz), UHF (403 - 470, 450 - 512MHz) · Power: 1 - 5 Watts VHF / 1- 4 Watts UHF · 7 - 10 Hour Battery Life (based on 5/5/90 duty cycle) · Mil Spec 810 C, D, E, & F · Dimensions H x W x L (with standard battery) - 4.00" x 2.23" x 1.54" · Weight (with standard battery) – 11.3 oz. · Standard Warranty: 3 Years



### EX600 XLS™ | Sleek, Compact, Powerful and Operates on LTR® Systems

Power and versatility are yours with the Motorola EX600 XLS portable two-way radio. At just 9.5 ounces, this full-keypad portable radio is compact and lightweight. This radio's many outstanding features include: six programmable buttons, a full range of signaling options and dual mode operation capability, which switches between LTR® and Conventional modes. User-friendly icons on the 14-character alphanumeric display provide clear, understandable information at a glance.

**Ideal for:** Event Management, Hospitality, Manufacturing, Security & Public Safety.

**Features:** Connects to 160 conventional channels and 15 Trunked Zones with 16 Talkgroups each · 14 Character Alphanumeric Display · Scanning capabilities · VOX · Programmable emergency button · Quik Call II™, DTMF, MDC-1200 **Specifications:** Frequency Range: VHF (136 -174MHz), UHF (403 - 470, 450 - 512MHz) · Power: 1- 5 Watts VHF / 1 - 4 Watts UHF · 10 Hour Battery Life (based on 5/5/90 duty cycle) · Mil Spec 810 C, D, & E · Dimensions H x W x L (with standard battery) - 3.74" x 1.04" x 2.17" · Weight (with standard battery) - 9.5 oz. · Standard Warranty: 3 Years



### PR1500™ | Performance in Critical Situations and Capable of P25 Interoperability

The Motorola PR1500 portable two-way radio combines ruggedness and reliability with advanced features and a sturdy design. Designed for easy migration to Project 25 standards, this radio is able to communicate across agencies and jurisdictions at mission-critical times. Enhanced sound clarity and dynamics nest in an ergonomic design. The bigger knobs and controls can be easily operated - even while wearing heavy gloves.

**Ideal for:** Community Safety Groups, Construction, Fire, Manufacturing, Police, Public Utilities.

**Features:** Up to 32 channels · Compatibility with P25 standards · X-Pand voice compression · 3 Position Concentric Switch · Priority channel mode scans for higher priority channel · Voice-operated transmit · Quik Call II and MDC 1200 signaling · IMPRES™ Energy System **Specifications:** Frequency Range: VHF: (136 - 174MHz) UHF: (380 - 470MHz, 450 - 520MHz) · Power: 1 - 5 Watts VHF / 1 - 4 Watts UHF · 10 Hour Battery Life (based on 5/5/90 duty cycle) · Dimensions H x W x L (with standard battery) 6.0" x 2.3" x 1.5" · Weight (with standard battery) - 19.85 oz. · Standard Warranty: 2 Years



### MT 1500™ | Supports Motorola Analog Type II Trunking and Analog Conventional

The MT 1500 portable analog two-way radio is built solid for the demands of business, with advanced technology delivering high-powered features in a light, compact package. Software enables the radio to expand its operations to three zones and multiple systems, including conventional and wide area SmartZone®.

**Ideal for:** Community Safety Groups, Fire, Police, Public Utilities.

**Features:** Up to 48 channels · 3 zones · Wide Area SmartZone · Call Alert Decode · Priority Scan · Select Radio Inhibit · MDC Stat Alert · Enhanced audio · Compatibility with other two-way models · **Specifications:** Frequency Range: VHF: (138 - 174 MHz) UHF: 1 (380 - 470 MHz); UHF 2 (450 - 520 MHz) 800 MHz: (806 - 870 MHz) · Power: VHF: 1 - 5 Watts; UHF: 1 - 4 Watts; 800MHz: 1 - 3 Watts · 8 Hour Battery Life (based on 5/5/90 duty cycle) · Dimensions H x W x L (with standard battery) - 5.9" x 2.3" x 1" · Weight (with standard battery) - 20.1 oz. · Standard Warranty: 1 Year

## MOTOROLA MOBILE RADIOS

### MOTOROLA SOLUTIONS

Motorola's mobile radios provide crisp, continuous and high quality communications for your in-vehicle needs. With a mobile team of employees, safety and productivity are vital to your organization. Offering a wide variety of models and features, Motorola's two-way mobile radios are an ideal solution of your communication needs.



### PM400™ | Built in versatility with LTR Trunking!

The PM400 mobile two-way radio is perfect for new two-way radio users, small organizations, and firms that want an affordable solution with a maximum number features. It offers 64-channel operation, innovative LTR trunking capability and option board expandability. Great care was taken in the design of the PM400 to ensure its ruggedness and reliability as well as its ease of use and functionality. It can be mounted in just about any vehicle.

**Ideal for:** Agriculture, Construction, Hospitality, Manufacturing, Public Administration, Security, Transportation, and Utilities.

**Features:** Up to 64 channels or 10 sites and 100 Talkgroups LTR · Outstanding privacy · Rugged design · Alphanumeric display · 8-character display · Large controls · Programmable buttons · Priority Channel Mode scans for higher-priority channel · Programmable side and Push-to-Talk buttons · Quik Call II and MDC 1200 Signaling · VOX **Specifications:** Frequency Range: VHF: (146 - 174MHz); UHF: (438 - 470MHz) · Power: Low Power VHF/ UHF 1 - 25 Watts; High Power VHF 25 - 45 Watts; High Power UHF 25 - 40 Watts · Mil Spec 810 E · Dimensions H x W x D - 1.73" x 6.67" x 4.64" · Weight - 2.25 lbs. · Standard Warranty: 2 Years



### PM1200™ | Low Band, High Power and Maximum Value

Motorola designed the PM1200 Professional Series two-way mobile radio to provide government and commercial institutions with maximum value. It offers local public safety, public works, utilities and transportation professionals a full range of easy-to-use features, with all the quality and reliability users expect from Motorola. Count on this dependable performer to provide clear, cost effective communication that meets the needs of hard-working professionals.

**Ideal for:** Commercial Institutions, Administration, Public Safety, Public Works, Transportation, and Utilities.

**Features:** Operates on choice of 250 channels · Large Channel and Volume Knobs · Backlit 8 - Character · Alphanumeric Display · Caller ID Emergency · MDC 1200 Signaling · VOX **Specifications:** Low band: (29.7 - 37, 37-50MHz) · Power: 50 - 120 Watts · Mil Spec 810 C, D, E, & F · Dimensions H x W x D - Control Head: 3.11" x 7.78" x 3.31"; Transceiver: 3.15" x 7.56" x 12.07" · Weight - 9.94 lbs. · Standard Warranty: 2 Years



## PM1500™ | P25 Interoperability Capable

With a rugged design and extra-loud speaker, the PM1500 mobile two-way radio is ideal for communication in crowded or noisy situations. This advanced device is P25-upgradeable, allowing interoperability across jurisdictions and agencies. The dual control head option enables multiple radios to operate within the same vehicle. This mobile radio is the perfect companion to the PR1500™ two-way portable radio.

**Ideal for:** Construction, Hospitality, Public Safety, Transportation, and Utilities.

**Features:** Operates on choice of 255 channels · Powerful 7.5-watt speaker · Compatibility with P25 standards · Dual Control Head option · Large, raised knobs · Four programmable buttons · Quik Call II and MDC 1200 signaling · Programmable emergency button  
**Specifications:** Frequency Range: VHF: (136 - 174MHz) UHF: (380 - 470MHz) · Power: 25 - 110 Watts · Mil Spec 810 C, D, E, & F · Dimensions H x W x D – Control Head: 2.56" x 7.22" x 3.38"; Transceiver: 2.765" x 8.08" x 12.31" · Weight - 14.9 lbs. · Standard Warranty: 2 Years



## CDM750™ | The Practical Radio

Ideal for organizations with moderate communication requirements, the CDM750 radio provides simple yet high-performing functionality. This mobile two-way radio has streamlined its features to keep users communicating steadily and efficiently. Motorola's unique X-Pand™ audio enhancement and a large front-projecting speaker ensure clear, crisp sound, even in noisy environments. The CDM750 gives you virtually everything you need to get the job done.

**Ideal for:** Construction, Manufacturing, and Transportation.

**Features:** 4 channels operation · Switchable channel spacing migrates easily between 25 - kHz and 12.5 - kHz frequencies · Two customizable buttons · MDC1200 encode signaling · Selective radio inhibit · Scan function · Powerful loudspeaker  
**Specifications:** Frequency Range: Low Band: (29.7 - 36, 36 - 42, 42 - 50MHz) VHF: (136 - 174MHz) UHF: (403 - 470, 450 - 512MHz) · Power: Low Power VHF/ UHF 1 - 25 Watts; High Power VHF 25 - 45 Watts; High Power UHF 25 - 40 Watts; Low Band 40 - 60 Watts · Mil Spec 810 C, D & E · Dimensions H x W x D - 2.3" x 6.93" x 7.44" · Weight - 3.5 lbs. · Standard Warranty: 2 Years



## CDM1250™ | The Versatile Radio

Perfect for growing organizations, the flexible CDM1250 two-way mobile can readily expand to meet rapidly changing business needs. Motorola's unique X-Pand™ audio enhancement and a powerful front-projecting speaker ensure superb sound clarity, even in noisy environments. The large 14-character alphanumeric display with user-friendly icons helps make information easy to understand. This mobile helps you keep productivity at its highest, no matter how fast your business grows.

**Ideal for:** Construction, Manufacturing, State & Local Government, Transportation, and Utilities.

**Features:** Operates on choice of 64 channels · 14-character alphanumeric display · Switchable channel spacing · Customizable buttons · MDC1200 encode signaling · Selective radio inhibit · Scan function · Quik Call II and MDC 1200 signaling · Received Signal Strength Indicator (RSSI)  
**Specifications:** Frequency Range: Low Band: (29.7 - 36, 36 - 42, 42 - 50MHz) VHF: (136 - 174MHz) UHF: (403 - 512MHz) · Power VHF/ UHF 1 - 25 Watts; High Power VHF 25 - 45 Watts; High Power UHF 25 - 40 Watts; Low Band 40 - 60 Watts · Mil Spec 810 C, D & E · Dimensions H x W x D - 2.34" x 7.05" x 7.8" · Weight - 3.5 lbs. · Standard Warranty: 2 Years



## CDM1550™ / CDM1550 LS +™ | The Sophisticated Radio

The CDM1550 mobile two-way radio is equipped to handle the needs of organizations requiring high levels of flexibility and functionality. An extensive range of signaling capabilities enables text messaging with dispatchers to minimize channel usage, or discreetly signals for emergency help even when the vehicle is turned off. X-Pand™ audio enhancement and a powerful front-projecting speaker ensure clear, crisp sound, even in noisy environments.

**Ideal for:** Construction, Manufacturing, State & Local Government, Transportation, and Utilities.

**Features:** Operates on choice of 128 channels · 14-character alphanumeric display · Switchable channel spacing · Customizable buttons · Status messages · Covert emergency signaling · Horn and lights activation · Quik Call II and MDC 1200 signaling  
**Specifications:** Frequency Range: Low Band: (42 - 50MHz) VHF: (136 - 174MHz) UHF: (403 - 470, 450 - 512MHz) · Power VHF/ UHF 1 - 25 Watts; High Power VHF 25 - 45 Watts; High Power UHF 25 - 40 Watts; Low Band 40 - 60 Watts · Mil Spec 810 C, D, & E · Dimensions H x W x D - 2.34" x 7.05" x 7.79" · Weight - 3.5 lbs. · Standard Warranty: 2 Years



Our highly trained experts will help you choose the right communication solution. Call us today!

**MOTOTRBO****MOTOTRBO™**

## MAKE YOUR ORGANIZATION MORE EFFICIENT AND BETTER CONNECTED

### PROFESSIONAL DIGITAL TWO-WAY RADIO SYSTEM

Your people are on the job, in the field, on the factory floor, moving across campus or throughout the city. Whether they're moving freight or providing security, repairing roads or restoring power lines, you need to keep them all connected, everywhere they go.

How do you equip them with technology that is easy to use? Improve their performance and increase productivity? The answer is as simple, seamless and scalable as MOTOTRBO™.

Motorola's robust, future-ready, standards-based solution is so flexible and versatile, it can be customized to fit your unique business, coverage and application needs. MOTOTRBO is the complete business-essential solution with portable radios, mobile radios, repeaters, accessories, data applications and services.

### ANALOG HAS HIT ITS LIMITS

Digital opens up a world of possibilities including clearer audio, integrated voice and data on one device, applications such as text messaging, GPS location tracking, telephony, work order ticket management, dispatch and more. Expect 40% longer battery life and greater capacity than analog – twice the number of users for the price of one frequency license.

### TRANSFORM YOUR WORKPLACE WITH DIGITAL TECHNOLOGY

Two-way radio has been a successful analog communication solution for generations. But in today's technologically advanced environment a new platform is at the forefront – a digital platform that breaks through to higher levels of performance and productivity and is revolutionizing the way mobile professionals communicate.

### DIGITAL DELIVERS WHAT ANALOG CANNOT

Analog has reached its limitations, whether it's issues with coverage or the inability to handle data. Digital technology opens up a world of possibilities, from exceptional audio clarity to integrated voice and data, that analog simply cannot deliver. With digital, you get:

#### Clearer Audio Quality

So messages are heard and understood without background noise or static.

#### Voice and Data on One Device

With integrated applications such as text messaging, GPS-based location tracking, work order ticket management, email gateways, dispatch consoles, network management, telephony integration and much more.



## TDMA GIVES YOU TWICE AS MUCH FOR LESS

Today, there are two primary digital radio technologies – Time-Division Multiple-Access (TDMA) and Frequency - Division Multiple-Access (FDMA). While both offer significant benefits over analog, here's why TDMA is best:

- Double your capacity per channel with less than half the infrastructure
- Double your capacity without a hassle
- Get long battery life for long work shifts
- Benefit from business-critical features

## KEEP THEM ALL CONNECTED

Give your employees the information they need to be more efficient with the remarkable convenience of one device. Experience clear and reliable voice communication with background noise suppression, the flexibility of group or private calls, quick access to contacts with keypad shortcuts and communication with landline or mobile phone users via digital telephone interconnect. MOTOTRBO also supports data – including text messaging, GPS location tracking capability, dispatch and custom applications from Motorola's Application Developer Program such as work order ticket solutions, email gateways, man-down, network monitoring and more.

### Get Voice and Data in One Device

MOTOTRBO™ supports both voice and data – including text messaging, GPS location tracking capability, and custom applications from Motorola's Application Developer Program such as telephony, dispatch, work order ticket solutions, email gateways, network monitoring, man-down and much more. So you can keep employees connected to the information they need to be more efficient, with the remarkable convenience of one device.



### Send text messages when voice isn't practical

Make sure your employees can quickly and easily share information when voice communication isn't an option. Text messaging is ideal for sending messages that don't need an immediate response, or when voice conversation could be disrupting to guests, students, customers, or patients. MOTOTRBO streamlines communication with text messaging between radios, radios and dispatch systems and radios to any email-capable device.



### Track vehicles and people with integrated GPS

MOTOTRBO radios have an integrated GPS module so you can track vehicles and people. Unlike other GPS-capable radios, the MOTOTRBO module is integrated into the handset so there's no clumsy equipment to attach, carry or maintain.

### Migrate at Your Own Pace

Keeping operations running smoothly during a change in communication systems is vital to your business. It's easy to migrate to digital with MOTOTRBO because radios operate in analog and digital mode. You can use MOTOTRBO radios in analog mode with your existing analog system and begin migrating work teams over to digital mode – one talk group or department at a time – while still maintaining communication across your entire workforce.

## REACH EVERYONE, EVERYWHERE THEY GO WITH MOTOTRBO

Whether you want to increase the number of users on your system, extend coverage, connect workers in different locations or deliver voice and data without adding new frequencies, MOTOTRBO features a scalable communication solution that fits your facilities, your workforce and your objectives.



**Conventional** systems combine the best of two-way radio with digital technology to deliver integrated voice and data communication, increased capacity, enhanced features, exceptional voice quality and extended battery performance for your business.



**IP Site Connect** is a digital solution that uses the Internet to extend the voice and data capabilities of MOTOTRBO. Use it to link up to 15 sites for communication among geographically dispersed locations, to create wide-area coverage or to enhance coverage at a single site with physical barriers.



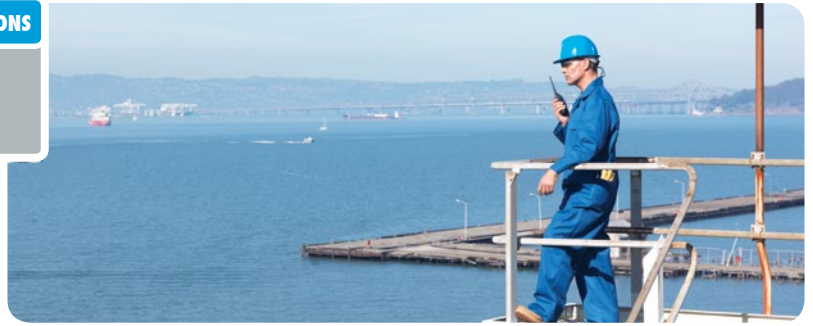
**Capacity Plus** is the single site digital trunking solution that maximizes the capacity of your MOTOTRBO system. Use it to enable a high volume of voice and data communication for over a thousand users at a single site, without adding new frequencies.



**Connect Plus** is the scalable, multi site digital trunking solution that helps keep your mobile workforce connected. With this scalable, high capacity MOTOTRBO system, calls can be queued during busy times until an open channel is available, important users can be assigned priority status when the system is in high demand, and a wire-line console can be used for centralized dispatch.

# MOTOTRBO PORTABLE RADIOS

MOTOROLA SOLUTIONS



## XPR™ 6350 / XPR 6380 NON-DISPLAY PORTABLE RADIO

### FEATURES AT-A-GLANCE

- 1 Tri-color LED indicator for clear, visible feedback of calling, scanning, roaming and monitoring features.
- 2 Emergency button to alert supervisor or dispatcher in an emergency situation.
- 3 Accessory connector meets IP57 submersibility specifications and incorporates RF, USB and IMPRES™ audio capability.
- 4 Integrated GPS module enables the use of location-tracking data applications.\*
- 5 Radio housing meets IP57 specifications; submersible in 1 meter of fresh water up to 30 minutes. Offers intrinsically safe options for use in locations where flammable gas, vapors or combustible dust may be present.
- 6 Powerful, front projecting speaker.
- 7 Three side programmable buttons for easy access to favorite features.
- 8 Large, textured push-to-talk button provides good tactile response and easy access, even when wearing gloves.
- 9 32 channels

**Additional Features:** Enhanced call management · Digital calling features\* (MDC 1200, Encode/Decode, Quik-Call II™) · Dual-mode analog and/or digital scan and mixed mode priority scan\* · Optional Expansion Card for added capabilities · 6.25e Compliant\* · Basic or Enhanced privacy – built-in scrambling for increased security\* · Free-form and quick text messaging\* · Contacts list accommodates up to 1,000 contacts · Voice Activated Transmit (VOX) hands-free communication · Operates in UHF, VHF or 800/900 MHz frequency bands



## XPR™ 6550 / XPR 6580 DISPLAY PORTABLE RADIO

### FEATURES AT-A-GLANCE

- 1 Flexible, menu-driven interface with user-friendly icons or two lines of text for ease of reading text messages\* and navigating through the menus.
- 2 Tri-color LED indicator for clear, visible feedback of calling, scanning, roaming and monitoring features.
- 3 Emergency button alerts supervisor or dispatcher in an emergency situation.
- 4 Accessory connector meets IP57 submersibility specifications and incorporates RF, USB and IMPRES™ audio capability.
- 5 Integrated GPS module enables the use of location-tracking data applications.\*
- 6 Large, easy-to-use navigation buttons allow easy access to intuitive menu-driven interfaces.
- 7 Radio housing meets IP57 specifications; submersible in 1 meter of fresh water up to 30 minutes. Offers intrinsically safe options for use in locations where flammable gas, vapors or combustible dust may be present.
- 8 Powerful, front projecting speaker.
- 9 Three side and two front programmable buttons for easy access to favorite features.
- 10 Large, textured push-to-talk button provides good tactile response and easy access, even when wearing gloves.
- 11 Up to 1,000 channels.

**Additional Features:** Enhanced call management · Digital calling features\* (MDC 1200, Encode/Decode, Quik-Call II™) · Dual-mode analog and/or digital scan and mixed mode priority scan\* · Optional Expansion Card for added capabilities · 6.25e Compliant\* · Basic or Enhanced privacy – built-in scrambling for increased security\* · Free-form and quick text messaging\* · Contacts list accommodates up to 1,000 contacts · Voice Activated Transmit (VOX) hands-free communication · Operates in UHF, VHF or 800/900 MHz frequency bands





## MOTOTRBO MOBILE RADIOS

### XPR™ 4350 / XPR 4380 NON-DISPLAY PORTABLE RADIO

#### FEATURES AT-A-GLANCE

- 1 32 channels; channel number is easy to read on large, clear numeric two-digit display.
- 2 Multi-colored LED indicators for clear, visible feedback of calling, scanning, roaming and monitoring features.
- 3 Large, easy-to-use volume knob.
- 4 Integrated GPS module enables the use of location tracking data applications.\*
- 5 Large, easy-to-use channel navigation buttons.
- 6 Powerful, front-projecting speaker.
- 7 Accessory connector supports USB and IMPRES audio capability.
- 8 Two programmable/replaceable buttons for easy access to frequently used features.
- 9 Compact and ergonomically friendly microphone.



**Additional Features:** Enhanced call management · Digital calling features\* (MDC 1200, Encode/Decode, Quik-Call II™) · Dual-mode analog and/or digital scan and mixed mode priority scan\* · Optional Expansion Card for added capabilities · 6.25e Compliant\* · Basic or Enhanced privacy – built-in scrambling for increased security\* · Free-form and quick text messaging\* · Contacts list accommodates up to 1,000 contacts · Voice Activated Transmit (VOX) hands-free communication · Operates in UHF, VHF or 800/900 MHz frequency bands

### XPR™ 4550 / XPR 4580 DISPLAY PORTABLE RADIO

#### FEATURES AT-A-GLANCE

- 1 Flexible, menu-driven interface with user-friendly icons or two lines of text for ease of reading text messages\* and navigating through the menus.
- 2 Multi-colored LED indicators for clear, visible feedback of calling, scanning, roaming and monitoring features.
- 3 Large, easy-to-use volume knob.
- 4 Integrated GPS module enables the use of location-tracking data applications.\*
- 5 Up to 1,000 channels.
- 6 Powerful, front-projecting speaker.
- 7 Large, easy-to-use navigation buttons allow easy access to intuitive, menu-driven interfaces.
- 8 Accessory connector supports USB and IMPRES™ audio capability.
- 9 Four programmable/replaceable buttons for easy access to frequently used features.
- 10 Compact and ergonomically friendly microphone.



**Additional Features:** Enhanced call management · Digital calling features\* (MDC 1200, Encode/Decode, Quik-Call II™) · Dual-mode analog and/or digital scan and mixed mode priority scan\* · Optional Expansion Card for added capabilities · 6.25e Compliant\* · Basic or Enhanced privacy – built-in scrambling for increased security\* · Free-form and quick text messaging\* · Contacts list accommodates up to 1,000 contacts · Voice Activated Transmit (VOX) hands-free communication · Operates in UHF, VHF or 800/900 MHz frequency bands

# MOTOTRBO REPEATERS



## XPR™ 8400 / XPR 8380 REPEATER

### FEATURES AT-A-GLANCE

- 1 100% continuous duty at 40W/UHF, 45W/VHF and 35W/800 MHz.
- 2 Supports two simultaneous voice or data paths in digital TDMA mode.
- 3 Integrated power supply with connector for optional external DC battery backup.
- 4 Operates in analog or digital mode – bright, clear, colored LE Ds indicate mode.
- 5 LED's clearly indicate transmit and receive modes in both channel slots.
- 6 Rack- or wall-mountable – compatible with desktop housing as well.
- 7 Sturdy handles make installation and handling easier.



**Additional Features:** Automated battery back-up (battery sold separately) · Operates in UHF, VHF or 800/900 MHz frequency bands · 6.25e Compliant\* · Dynamic mixed mode capability allows for automatic switching between analog and digital conventional modes · Repeater diagnostic and control software provides remote or local site monitoring · IP repeater programming uses Internet Protocol (IP) at a central location to complete programming changes and upgrades on remotely located repeaters

## MTR3000™ REPEATER

### FEATURES AT-A-GLANCE

- 1 100% continuous duty cycle (Integrated 100W Power Amp)
- 2 Supports two simultaneous voice or data paths in digital TDMA mode with 16 channels\*
- 3 Integrated AC /DC power supply
- 4 Operates in analog or digital mode
- 5 LED's clearly indicate transmit and receive modes and overall station status
- 6 Rack-or-cabinet mountable
- 7 Front access speaker port for serviceability ease
- 8 Front access microphone port for routine service
- 9 Standard USB port for station configuration



**Additional Features:** Convenient access to station ports, shortening installation and maintenance time · 12.5 or 25 kHz programmable channel spacing · 6.25e Compliant\* · Integrated 100W Power Amplifier and AC /DC Power Supply minimizes cabling, rack space, expense, and overall complexity · Software based design simplifies feature upgrades · Power supply functions over a wide range of voltages · Automated battery back-up (charger sold separately) · Restriction of Hazardous Substances (RoHS) compliant · Operates in UHF, VHF or 800/900 MHz frequency bands · Repeater diagnostic and control software provides remote or local site monitoring · Dynamic mixed mode capability allows for automatic switching between analog and digital conventional modes · IP repeater programming uses Internet Protocol (IP) at a central location to complete programming changes and upgrades on remotely located repeaters

# MOTOROLA

## P25 DIGITAL PORTABLE RADIOS



Keep your personnel and the community safer than ever before with mission critical designed portable radios that deliver interoperability, best-in class audio quality and intuitive performance.



### **XTS® 1500 P25** | Cost-Effective Digital Portable Radio

When your community's well-being is at stake, you can count on the XTS 1500 digital portable radio. Built for the demands of public utility operations, the radio's advanced technology delivers high-powered features in a light, compact and rugged package. This radio allows your work groups to be prepared for the unexpected, respond immediately and offer the highest quality of service to the community. This portable radio complies with both Project 16 and Project 25 standards and is available in 700/800 MHz, VHF, UHF R1 and UHF R2 bands.



### **XTS® 2500 P25** | High-Performance Digital Portable

The XTS 2500 digital portable radio offers an exceptional solution to coordination and communication needs. Noise reduction software eliminates background interference, ensuring a clear, crisp signal. Compliance with P25 standards means reliable transmission and reception across agencies and jurisdictions. The rugged design resists extremes in temperature, shock and weather. The XTS 2500I option can even be immersed in water.



### **XTS® 5000 P25** | Advanced Digital Portable Two-Way Radio

The XTS 5000 is the toughest and most advanced interoperable digital portable radio Motorola makes. It assures high quality communication through a robust design that stands up to the most demanding environments. Enhanced spectrum utilization and seamless integration deliver a clear, crisp signal, even in congested urban areas or dispersed rural regions. The radio is IP-enabled, offering a full array of sophisticated features and progressive technology.



### **APX™ 6000 P25** | Smart Investment Delivering Leading Edge Technology

Delivering outstanding performance in a compact form factor without sacrificing the features you need most. The APX 6000 is the next generation of ruggedly reliable performers that gives you the advanced features such as Mission Critical Wireless and GPS location tracking in the smallest, P25 Phase 2 TDMA-capable radio available. Whether you're responding to a call or racing to a fire, the APX 6000 puts you in greater control of your safety, response time and technology investment.

Single Band Operation | Excellent Audio | Compact Design



### **APX™ 6000 XE P25** | Designed For Users Working In Extreme Environments

Designed with extreme ergonomics and advanced features in a single-band, rugged form factor, the APX 6000XE is the ideal communication solution for first responders working in extreme environments. Its exaggerated controls make the radio easy to use while wearing gloves, and the extreme audio profile allows firefighters to be heard and clearly understood in high noise environments. Offered in three models, departments now have the flexibility to equip firefighters and EMS users with advanced features like Front Panel Programming (FPP), text messaging and GPS location tracking.



### **APX™ 7000 P25** | Capable Of Multi-Band Operation, Backward and Forward Compatibility

The APX 7000 multi-band radio places instant interoperability into the hands of mission-critical first responders. Motorola's 4th generation P25 Subscriber is capable of multi-band interoperability in one radio and can operate in any 2 of the following frequency bands: 700/800 MHz ,VHF, UHF Range 1, offers backward and forward compatibility (FDMA and TDMA), and integrated GPS for outdoor location tracking. Designed with mission-critical technology, the radio amplifies public safety officials' ability to keep the community safer than ever before.

Multiband Operation | Best-in-Class Audio | Future Expandability



### **APX™ 7000 XE P25** | Designed for Extreme Environments with Multi-Band Interoperability

At first glance, the APX 7000XE is unquestionably a rugged, mission-ready radio. Yet some of its most remarkable aspects come from questioning traditional thinking. That is why every feature and function of the APX 7000XE has been designed with your safety in mind; from best-in-class audio, to industry leading ergonomics, and advance features such as intelligent lighting and voice announcement. All innovative features that make the APX 7000XE an ideal fit for the fire service.

Multiband Operation | Best-in-Class Audio | Extreme Ergonomics

## **MOTOROLA** **P25 DIGITAL MOBILE RADIOS**

**MOTOROLA SOLUTIONS**

Mobile radios link a force together, enhance productivity and ensure reliable communications for a swift, effective joint response.



### **XTL™ 1500** | Affordable, Powerful, Durable, and Functional for Everyday Use

The ASTRO® XTL 1500 digital mobile radio is an affordable two-way choice for organizations with moderate communication requirements. Built to withstand demanding conditions, the unit is capable of resisting dust, blowing rain, vibration, shock and many other rough situations. Compliance with Project 25 ensures a crisp, continuous and high-quality signal. Enhancements to a DIGITAL system include: 255 channels, ADP, Data Capability, 20 call lists, 25 call list members, and 20 scan lists.



### **XTL™ 2500 P25** | Supports Encryption and is Data Capable

The ASTRO® XTL 2500 digital mobile radio comes through in demanding situations. Robust and “mission critical” tough, it combines visionary technology, advanced features, and Motorola quality to enable clear and consistent communication. The high quality transceiver and sleek user interface constantly delivers whether you want P25 interoperability, data, or encryption capabilities. Its reliability makes it ideal for police, fire, EMS or government agencies.



### **XTL™ 5000 P25** | Supports Multiple Analog and Digital Protocols

The Astro® XTL 5000 digital mobile radio is equipped to meet the most demanding needs of your organization. The advanced architecture and ergonomic design comply with Project 25 standards, offering a clear signal, even in rough weather. The IP-enabled unit is easily upgraded so that applications can easily adapt to tomorrow's technological needs. Whether you are en route or on site, across the street or across the state, this mobile radio assures crisp, continuous and high-quality communications.



### **APX™ 6500 P25** | Ideal for Agencies Requiring Single Band Operation

Motorola put exceptional flexibility into an advanced mission critical mobile radio that's easy to operate and intuitive to use. The APX 6500 P25 mobile allows users to choose from 2 control heads, mid and high power models and multiple installation configurations in an easy to install design. Innovative safety features such as GPS location tracking, intelligent lighting and one-touch controls help to keep first responders safer than ever before.

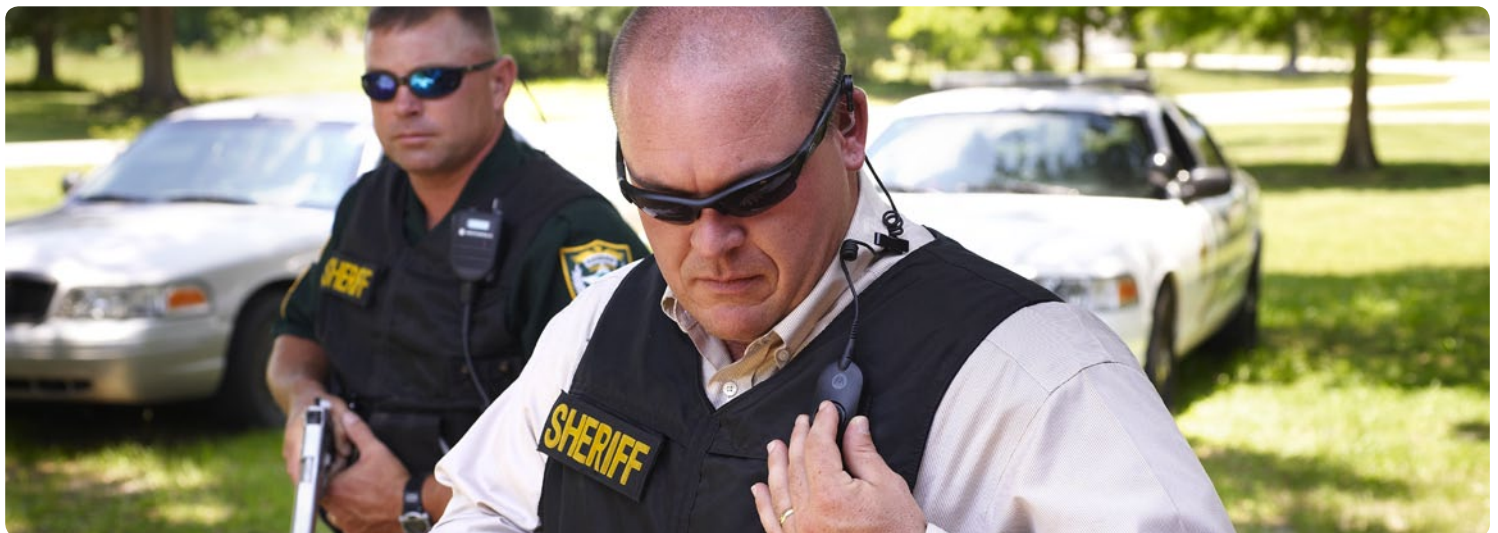
Single Band Operation | O3 and O5 Control Head Support | Dual Control Head Support



### **APX™ 7500 P25** | Capable Of Multi-Band Operation, Backward and Forward Compatibility

The APX 7500 multi-band radio provides instant interoperability into the hands of mission critical first responders. Motorola's 4th generation P25 Subscriber is capable of multi-band interoperability in one radio (700/800 MHz and VHF), backwards and forwards compatibility (FDMA and TDMA), and integrated GPS for outdoor location tracking. The APX 7500 offers a complete control head portfolio with 3 options available. The O3 Handheld Control Head, O5 Standard Control Head and O9 Integrated Control Head give users the flexibility to choose the control head that best meets organizational needs. Designed with mission critical technology, the radio amplifies public safety officials' ability to keep the community safer than ever before.

Multiband Operation | O3, O5 and O9 Control Head Support | Quad Control Head Support | Motorcycle Configuration



## MOTOROLA ORIGINAL

**MOTOROLA ORIGINAL® ACCESSORIES  
LET YOU MAKE THE MOST OF YOUR  
MOTOROLA SYSTEM'S CAPABILITIES.****Here's why.**

You made a sound business decision when you chose your Motorola two-way radios. When you choose performance-matched Motorola Original accessories, you're making another good call.

That's because every Motorola Original accessory is designed, built and rigorously tested to the same quality standards as Motorola radios. So you can be sure that each will be ready to do its job, time after time - helping to increase your productivity. After all, if you take a chance on a mismatched battery, a flimsy headset, or an ill-fitting carry case, your radio may not perform at the moment you have to use it.

Through an exclusive, patented technology, Motorola's IMPRES accessory portfolio enables communication between the radio and associated accessories. Motorola's MOTOTRBO platform is the first to offer a combined portfolio of IMPRES energy and audio accessories designed to meet your advanced communication needs.

Motorola is pleased to bring you this comprehensive collection of proven Motorola Original accessories for your important business communication needs. In this catalog you'll find remote speaker microphones for more convenient communication. Discreet earpiece systems to help ensure privacy and aid surveillance. Carry cases for ease when on the move. A headset for hands-free operation. Premium batteries to extend work time, and more. They're all ready to help you work smarter, harder and with greater confidence.



## WHY MOTOROLA ORIGINAL

### AUDIO ACCESSORY SOLUTIONS FOR INDUSTRIES

#### Motorola Original® accessories provide custom radio systems.

Risk-taking has its place in the business world, but not with your vital communication needs. A mismatched battery, a flimsy headset or an ill-fitting carry case are just some of the ways your radio may not be ready at the moment you have to use it.

That's why Motorola Original accessories are your best option for making the most of your radio's capabilities. Every accessory in this catalog is performance-matched for Motorola radios... designed, built and rigorously tested to meet the same exacting quality standards. So they provide not only enhanced functionality, but also exceptional reliability in real-life usage.

On the following pages, you'll find proven accessory solutions to help you work harder and smarter. Remote speaker microphones for more convenient control. Carry cases for ease of use when on the move. Earpieces to ensure privacy. Headsets for hands-free operation. High-capacity batteries to extend work time. Because they all carry the Motorola Original name, they're solutions you can count on.



#### EDUCATION

A Lightweight Headset makes it convenient and comfortable to manage administration duties or contact colleagues from across the campus.



#### SECURITY

A Remote Speaker Microphone lets security professionals respond instantly without need to reach for the radio controls.



#### HOSPITALITY

Whether you're coordinating staff or making a last-minute room change, an Ultra-lite Headset keeps your hands free.



#### RETAIL

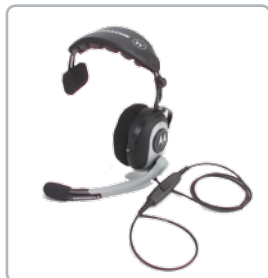
An Earpiece with Microphone makes it easier for each employee to communicate instantly — from price checks to stocking questions.

Call us today to enhance your two-way radio capabilities with high-performance Motorola Original® accessories.



# PORTABLE RADIO PARTS + ACCESSORIES

MOTOROLA SOLUTIONS



## HEADSETS

Essential for secure environments...

### Lightweight Headsets

Lightweight headsets provide high-clarity, hands-free, discreet two-way communication, while maintaining the comfort necessary for extended-wear in moderate noise environments.

### Medium Weight Headsets

Medium weight headsets offer high-clarity sound, with the additional hearing protection necessary to

provide consistent, clear, two-way radio communication in harsh, noisy environments or situations.

### Heavy-Duty Headsets

Heavy-duty headsets include noise-cancelling boom microphones and can be worn with or without a hard hat. The Push-to-Talk switch is located on the earcup.



## EARPIECES

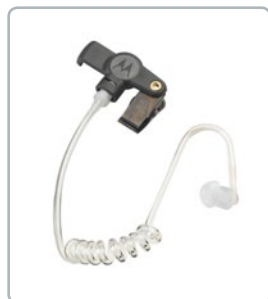
Essential communication...

### D-Style Earpiece

In responding to today's image conscious users, Motorola introduced the D-style earset. D-style earsets are designed to ensure comfort of use while providing an elegant, sleek appearance. Constructed with Motorola's quality and reliability standards.

### Earbud with Clip Microphone and Push-to-Talk

For convenience and uninterrupted productivity. Push-to-talk button activates microphone when user is ready to speak.



## SURVEILLANCE KITS

Discreet communication...

Surveillance accessories allow the user to receive messages privately through the earpiece – ideal when discreet communication is required.

### Quick Disconnect Noise Kits

Noise kits provide extra comfort and/or noise protection when wearing surveillance accessories. Lightweight,

translucent tube attaches to the surveillance kit and includes a quick disconnect adapter, which allows you to easily remove or alternate acoustic tubes. Clothing clip prevents accessory from being pulled from the ear due to body movements.



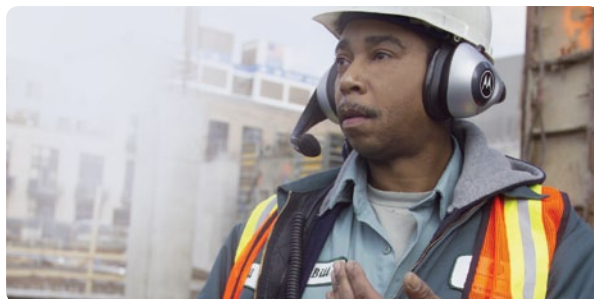
## REMOTE SPEAKER MICROPHONES

### The most popular accessory in Motorola Audio line

Motorola's Remote Speaker Microphones (RSMs) are a vital two-way radio accessory solution for users who need to talk and listen without removing the radio from their belt or carry case. RSMs give users flexible solutions and the confidence of clear, understandable communication even in the most adverse conditions.

### Windporting Remote Speaker Microphones

The windporting feature dramatically lessens background noise caused by high winds and other severe weather conditions. Audio can pass through the speaker grill even when the microphone port is blocked by water, ensuring a user's confidence of clear communications. These sturdy microphones are the must have communication audio accessories for those working at the job site or in the field.



## BATTERIES

**Motorola Original Batteries are ruggedly designed for lasting durability and are system tested with Motorola two-way radios to ensure optimum performance.**

Motorola batteries are available in various chemistry and capacity alternatives, allowing the user to select the ideal battery for his or her needs. NiCd batteries provide the maximum number of charge/discharge cycles and are best suited for temperature extremes. NiMH batteries provide more talk-time per shift and are less prone to memory effect. Li-ion batteries offer the best power-to-weight ratio of all chemistries, with no memory effect.

**Only Motorola batteries are proven tough.**

Because “as good as” never is. When staying productive means staying in touch, you need batteries you can depend on day in and day out. You can trust Motorola batteries to work better and last longer than ordinary replacement batteries - maximizing productivity and keeping your people in touch.

Not all batteries are alike. Motorola two-way wireless radio batteries employ the highest standards of quality and consistency, from the manufacturing floor to the rugged requirements of real-world use. As part of Motorola’s manufacturing process, each two-way radio battery model must pass grueling Accelerated Life Testing (ALT) that includes a rain test (steady rainfall and wind for 30 minutes on every surface), a salt fog test (exposure to an atomized salt solution for 48 hours), a dust test (six hours of dust blowing on all surfaces), a vibration test (up to nine hours of exposure to vibration) and a shock test (18 shocks with a minimum G force of 40 Gs apiece).

Motorola Original batteries are designed to stand up to your demanding work environment and provide reliable power that you can count on. When you see the Motorola Original logo, you know the products are built and tested to meet the toughest standards. Do tough Motorola Original Products protect your communication system from the hazards of everyday life? You can count on it.

**IMPRES™ Smart Energy System**

IMPRES batteries when used with an IMPRES charger provide automatic, adaptive reconditioning, end-of-life display, and other advanced features. Data is stored in the battery and communicated to the charger via a unique IMPRES communication protocol which is designed to maximize talk-time and optimize battery cycle life — all automatically. Maintenance and warranty on the batteries are extended when IMPRES chargers are used.

**Ready when you are.**

Make sure your radios are ready for action when you are – an IMPRES battery may be left in an IMPRES Charger for extended periods without heat damage due to the charger. This makes IMPRES ideal for applications that require equipment in a “ready” state at all times.

**YOUR RADIO IS ONLY AS RELIABLE AS THE BATTERY THAT POWERS IT.**

**MAKE SURE IT’S PROVEN TOUGH.**

***Have a spare battery ready for when you need it!***



# PORTABLE RADIO PARTS + ACCESSORIES

MOTOROLA SOLUTIONS



## CHARGERS

### Essential Power...

#### Rapid Rate

Tri-chemistry chargers that will charge the standard capacity batteries in less than 3 hours, ensuring your batteries will be ready to go when you need them.

#### Multi-Unit Charger

Allows drop-in charging for up to six radios and or batteries from a single outlet. Also provides a central storage location for radios at the end of the day.



## CARRYING ACCESSORIES

You'd be surprised how much time can be saved when a radio is always in the same place - made easy by this versatile selection of Motorola Original carrying accessories.

#### Leather and Nylon Carrying Cases

Motorola carrying cases were developed to meet the demands of public safety and other users who operate in the most rigorous of environments.

A variety of carrying accessories are available for comfort and convenience. The carrying cases are available in sizes designed to fit radios with a battery and permit audio to be heard clearly. Leather cases are constructed of top grain, 8 ounce leather and all stainless steel hardware.

High-activity cases have a swivel D-ring button and belt loop. To remove case from belt loop, rotate case 180 degrees and slide case upward, out of the holder. Case stays on belt more securely in high-activity applications while allowing the radio to swing freely with body movements.

#### Carrying Accessories

We also offer a full line of carrying accessories including: belt clips, t-straps, high- activity belt loops, and carrying straps.

#### Chest Packs

Motorola original universal chest pack protects the radio And provides the freedom from holding it during standby Communication mode. Universal chest pack fits Virtually any radio.



## PORTABLE RADIO ANTENNAS

### Tested and tuned for performance...

A communication system is only as good as the mobile antennas used to transmit and receive - so whenever lives are on the line Motorola Original® accessories should be the go-to choice.

#### Flexible Whip Antennas

Designed with a one-piece finish and steel core for optimal radiation characteristics. The flexible design provides more comfort when the radio is worn on the belt.

#### Heliflex Antennas

Engineered for maximum output and greatest communication coverage.

#### Stubby Antennas

A shorter antenna designed to be non-obtrusive. Most comfortable solution when wearing the radio on the belt.

# MOBILE RADIO PARTS + ACCESSORIES



## MOBILE MICROPHONES

Motorola Quality...exceptional dependability

### Standard Compact Microphone

Standard Compact Microphone provides basic Push-To-Talk

### Heavy-Duty Microphone

Heavy-Duty Microphone is for users who want more durability, also ideal for those who need a larger microphone that is easier to handle when wearing gloves.

### Enhanced Keypad Microphone

Enhanced Keypad Microphone includes a full keypad that enables you to dial phone numbers from the microphone, also has three customizable buttons that can be programmed with any of the control head features.



## MOUNTING ACCESSORIES

Mobile radios are often installed on the dash of a vehicle, and run off its power source. Here are some of the accessories available for mounting your mobile into your vehicle:

Low and High Profile Mounting Brackets, Key Lock Mounting Brackets, 8" Goose Neck Mounting Bracket.



## SPEAKERS AND PUBLIC ADDRESS KITS

College campuses, commercial and industrial complexes, government facilities, military bases, municipal districts, local schools and even cities have a great need to be able to communicate with the public in the event of an emergency, public events or festivals. These accessories

can help you get the word out whether it's from a vehicle or from a desktop station through speakers at a fixed location.



## ANTENNAS

Tested and tuned for performance...

A communication system is only as good as the mobile antennas used to transmit and receive - so whenever lives are on the line Motorola Original accessories should be the go-to choice.

### Wave Base Roof Mount Antennas

The signals for these antennas are radiated vertically,

making them ideal for urban environments where buildings might obstruct the signal.

### Magnetic/Roof Mount Antennas

These antennas are designed to direct the signal more towards the horizon, making them ideal for applications in more geographically flat regions where signal coverage is sparse and must cover a larger area.



## CONTROL STATION ACCESSORIES

The control station accessories convert a Motorola mobile two-way radio into an attractive, convenient base station. Ideal for securing mobile in place in a desktop environment.





FIND  
THE  
RIGHT  
SOLUTION  
WITH A  
FREE  
CONSULTATION!

**HASTYSFL.COM**

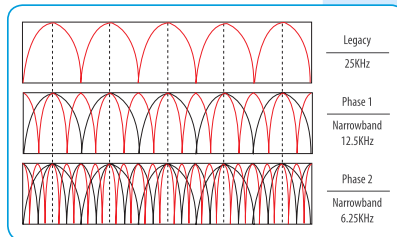
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270 N Hwy 17 #6  
Palatka, FL 32177  
386-328-3465



**Hasty's Communications of FL**  
6609 Commonwealth Ave.  
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**THE FCC DEADLINE FOR  
NARROWBANDING IS  
JANUARY 1, 2013!**



## ARE YOU COMPLIANT?

**The FCC recently published some of the potential enforcement consequences to VHF/UHF licensees for failing to narrowband by January 1, 2013:**

Operation in violation of the Commission's rules may subject licensees to appropriate enforcement action, including admonishments, license revocation, and/or monetary forfeitures of up to **\$16,000** for each such violation or each day of a continuing violation and up to **\$112,500** for any single act or failure to act.

### Call an FCC Licensing Expert Now!

See what you need to do to be ready for a smooth and cost effective transition to comply with the standards and assure continued performance. We are ready to meet with you in a free one-on-one consultation and provide the information you need to make informed decisions.

**Go to page 3 for more info.**



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